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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/442,106	11/17/1999	JOHN PHILIP PETTITT	53588-025	5428

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EXAMINER
GARG, YOGESH C

ART UNIT	PAPER NUMBER
3625	

DATE MAILED: 10/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/442,106	PETTITT, JOHN PHILIP
	Examiner	Art Unit
	Yogesh C Garg	3625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 July 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. Amendment B, paper number 7, and drawing amendment, paper number 8, received on 07/29/2002 are entered. Claim 27 is amended. Claims 17-30 are currently pending for examination.

Response to Arguments

2. With reference to the applicant's arguments filed on 07/29/2002 regarding objections to specification and drawings are withdrawn. With reference to applicant's arguments that is the absence of all conceivable specific implementation details from the disclosure are within the knowledge of one skilled in the art and the level of skill in this field is high (see amendment, page 5, lines 6-11) rejections of claims 17-30 under first paragraph of 35 U.S.C. 112, are withdrawn. In view of applicant's arguments (amendment, pages 5-8) rejection of claims 17, 24, and 28-30 is withdrawn.

Since applicant has not responded with any reasoning against rejection under double patenting, it is maintained. It is noted that applicant has agreed to file a terminal disclaimer under 37 C.F.R. 1.321 (c) in case there is an allowance of the claims.

Applicant's arguments with respect to prior art rejection regarding claims 17-30 have been considered but are moot in view of the new ground(s) of rejection. This is a non-final rejection.

Double Patenting

3 The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper time wise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 17-30 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,029,154. Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitation of " determining whether a physical address specified in the transaction information is consistent with other physical addresses.....with the Internet address of the consumer" in independent claims 17, 24, 28,29 and 30 in the instant application is anticipated or an obvious variation of the claimed limitations " creating and storing a ..an Internet identification mechanism...based on transaction information, in combination with information that identifies the consumer, in which the transaction information provides the merchant...." And " obtaining other transactions utilizing an Internet address that is identified whether the credit card transaction". Since claims 18-23 and 25-27 are dependencies of claims 17 and 24 respectively they inherit their deficiencies and are rejected.

Claim Rejections - 35 USC § 103

5 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 17--26, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallace (US Patent 5,988,497) in view of McCrea et al., " The Internal Report " prepared by CSIRO for the Australian Taxation Office as part of the ATO's Electronic Commerce Project, June 1997, further in view of Gopinathan et al. (US Patent 5,819,226).

With regards to claims 17--26, and 28-30, Wallace teaches a method, system and a computer readable medium for detecting fraud in a transaction involving purchasing a product between a consumer and a merchant over the Internet (col.1, lines 5-40 and col.6, lines 6-17 (" *transactions over a computer network, e.g., Internet*").

Wallace teaches receiving from the merchant or a number of merchants, credit card and transaction information (s) identifying the consumer (s) and product (s) and verifying these informations based upon automatic verification system (it is inherent to check the name, address of the bearer presenting a credit-card for any purchase transaction involving shipping a package as admitted in the application on page 5, lines 15-18), consistency, and history checks verifying the credit card information that determines whether a physical address specified in the transaction information is consistent with other physical addresses that have been specified in a database of records (At least see col. 2, lines 4-15, "... *The necessity of a second tier of validation.....numerous threshold criteria or conditions.....transaction amount, credit limit,*

frequency of use....change in purchasing patterns(e.g., change in shipping address), geographical limitations, or the like....validation is justified", col.4, lines 32-49, "*..For example, prevention of a fraudulent transaction....combination of threshold criteria (e.g., credit limit over $5000...)... ..average charge is under $100....trigger second tier validation* ", and col.5, line 40-col.7, line 23. Note: Wallace here teaches carrying out validation check which corresponds to detection the fraudulent transactions on threshold criteria or numerous conditions covering history and consistency. Wallace uses this fraud detection procedure to determine whether to use further stringent methods to prevent fraudulent transactions but in no way teaches against the claimed invention in the application.).

Wallace fails to teach use of an Internet address in the detection of fraud in a credit card transaction by verifying if the information about physical addresses associated with the internet addresses used in the transactions are consistent. However, McCrea teaches use of Internet addresses in verifying the physical address associated with the internet address (page 95-page 96, heading 3.2.2. 2 Identification at the IP level, " *IP numbers are the primary way of identifying computers engaged in Internet activities...IP numbers within Australia can be related to other legal entities.....*", page 112, 3.5.1.1 Identification Issues, *"....Most of the examples.....of tax compliance* ", pages 159-161, C. Collecting information to assist with identification, "*..Recommendation 11....Webshop details ..include...IP number.....e-mail address for correspondence.....the computer containing the webshop.....the owner is an Australian resident.....Recommendation 14:...A record of the ranges of IP numbers of Australian based computers should be maintained....*". Note: Internet address detected in the Internet transactions is being used to verify if the physical address associated with the Internet address). In view of McCrea it would have been obvious to a person of an ordinary skill in the art at the time of the invention to modify Wallace to use Internet address in detecting the credit card fraud

detection by verifying information about physical address associated with the Internet address used in the transaction. Doing so would provide an important parameter, another criteria, to detect the fraudulent credit-card transactions as suggested by Wallace (col.2, lines 4-15, "....*The necessity of a second tier of validation could be prompted by numerous threshold criteria of conditions. Examples of threshold criteria include transaction amount.....frequency of use, or the like, geographical limitations, or the like...These thresholds or conditions can be set by the service provider.....*". Note: Wallace keeps it open to determine the criteria to verify the credit card transaction for the second tier validation, if required and as suggested in McCrea, the criteria of verifying the consistency of the Internet address with a pre-defined physical address can be used.

Wallace/McCrea fails to teach creating and storing a fraud score value based on the verifying steps that provides the merchant with a quantifiable indication of whether the credit card transaction is fraudulent. However, Gopinathan, in the same field of endeavor, i.e., detection of credit card frauds discloses creating and storing a fraud score value based on the verifying steps that provides the merchant with a quantifiable indication of whether the credit card transaction is fraudulent (col.3, line 66-col.4, line 20, "...*Referring now also to FIGS.2.....System monitor 201 shows a cutoff score 202....the number of accounts with scores above the cutoff 203, and the fraud score 204.....FIG.3.....FIG.4..fraud score 403....*"). In view of Gopinathan, it would have been obvious to a person of an ordinary skill in the art at the time of the invention to modify Wallace/McCrea to include the feature of creating and storing a fraud score value based on the verifying steps that provides the merchant with a quantifiable indication of whether the credit card transaction is fraudulent. Doing so would help the merchants to estimate a probability of fraud for each transaction, as suggested in Gopinathan

(col.2, lines 27-34, *".....In accordance.....there is provided...detecting fraudulent transactions.....to estimate the probability of fraud for each transaction* ")

Wallace/McCrea/Gopinathan teaches that in neural networks the strength of parameters, in estimating probability of fraudulent credit card transactions, is represented by weights. However, Wallace/McCrea/Gopinathan does not teach that the weights are determined by merchants according to the importance of each verifying step in the credit card transaction. Official Notice is taken of both the concept and benefits to accord weights to various parameters, and weights being determined based upon the importance assigned to each parameter as per ones own discretion, to arrive at a final score/total to evaluate a performance. For example, it is well known that teachers assign different weights to quizzes, home assignments, class-work, and tests while evaluating the performance and to award a final and cumulative grade to the student. Therefore, it would have been obvious to a person of an ordinary skill in the art at the time of the invention to modify Wallace/McCrea/Gopinathan to include the feature of letting merchants determine the weights according to the importance of each verifying step. Doing so would help the merchants to represent the strengths of verifying steps, used in determining fraudulent credit card transactions, by weights as per their discretion, as suggested above in the example of teachers estimating the final grade of a student.

7. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wallace/ McCrea/ Gopinathan and further in view of Richardson, R, "..Neural networks compared to statistical techniques ", Computational Intelligence for Financial Engineering (CIFEr), 1997., Proceedings of the IEEE/IAFE 1997, pages 85-89, 24-25 March 1997, New York City.

With regards to claim 27, Wallace/ McCrea/ Gopinathan teaches a method for detecting fraud in credit card transaction between a consumer and a merchant over the Internet as

disclosed in claim 24 above. Wallace/ McCrea/ Gopinathan fails to teach constructing a map of credit card transactions and use of them. However, Richardson teaches constructing a map of credit card transactions and use of them (entire article. See Figures 2.3, 2.4, 2.5, 2.6 and 3.1. In view of Richardson, it would have been obvious to a person of an ordinary skill in the art at the time of the invention to recognize the importance and benefits of constructing maps based upon transactions and using them and combine this feature with Wallace/ McCrea/ Gopinathan. Doing so would help to discriminate between normal account activity and fraudulent credit card transactions as suggested by Richardson (pg.90, under paragraph 2.3 Statistical Techniques, ".. The process.....fraudulent transactions ").

Conclusion

8. The prior art made of record and considered pertinent to applicant's disclosure:

   (i) US Patent 5,491, 817 to Gopal et al. teaches a linking system to retrieve information about transactions of consumer from stored information to verify credit information.

   (ii) US Patent 5,231,570 to Lee teaches a credit verification system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh C Garg whose telephone number is 703-306-0252. The examiner can normally be reached on M-F (8:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wynn W Coggins can be reached on 703-308-1344. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Yogesh C Garg
Examiner
Art Unit 3625

YCG
October 21, 2002

WYNN W. COGGINS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600